Josiah Wedgwood, manufacturing and craft

Introduction

What happened to craft under industrialization? In part this is an empirical question, and so in part a question of the beliefs and understandings that have prevailed about both craft and other forms of making. Industrialization persists in British cultural memory as both a triumphant and a traumatic event. It remains the *Pandaemonium* of the title of Humphrey Jenning's anthology of contemporary writings on the coming of the 'machine age,' a book reputedly responsible for the vision of an Edenic Britain swept away by industrialization that suffused Danny Boyle's opening ceremony at the 2012 London Olympic games.[1] The triumphant aspect of this story is one of inventive, productive power and the enhancement of material wealth. The traumatic aspect is one of loss; of the *Change in the Village* dissected by George Bourne in his eponymous book, and of the mental degradation so fervently scripted by William Blake's Milton – "Oh Satan", says Los, "To Mortals thy Mills seem everything'.[2] Craft and skill play central if ambiguous and problematic roles in this story of industrialization. The Industrial Revolution is readily taken as a point of juncture or, better, disjuncture, itself a machine dividing 'mere' making from manufacture. Once this opposition is fired up, other dualisms fall like sparks: incompleteness/completeness; variability/uniformity; considered/efficient; opaque/transparent; curiosity/knowledge; uncertainty/probability; chaos/order; crudeness/sophistication; passion/control; Gothicism/Classicism; accident/intent.

In this paper we look back across the divide of these stark dualities to investigate what it is to craft something to be sold, bought, used and discarded. Of course, the argument has been made before, many times, that throughout this period craft either persisted, partly despite, or in resistance to, manufactures, or was indeed intensified in some instances by industrialization's demand for new skills. These are important and valid arguments, but we want to look for craft in places where it has gone unnoticed and where it might bloom in the interstices created by industrialization. To do this we take the case of one of the greatest manufacturers, for some the figure who epitomized the

spirit of innovative and efficient production that characterized the newly confident industrialization of the economies in Western Europe: Josiah Wedgwood.

Our study is developed in the following way. First, we recapitulate the histories told about the fate of making (and craft) under industrialization before moving on to a consideration of the specific place accorded to Wedgwood in these histories of making. Here we will introduce as a foil Glenn Adamson's recent work on *The Invention of Craft*. We believe Adamson to have fundamentally misread Wedgwood's very important role in the transformation of making. Next, through a close and sustained reading of Wedgwood's very extensive correspondence, we propose how a new understanding of craft can be reinserted into the story of industrialization. This new understanding builds on David Pye's notion of craft as the workmanship of risk, but extends it beyond the realm of actual hand-making. Through a phenomenological reading of the letters (in which Wedgwood often talks about his own experience of making pots) we conceptualize our extended notion of craft as one not of risk but occasioning.

Making and manufactures in histories of industrialization

Manufacturing, we are told, concerns itself with closure, replicability, speed, smoothness (of surface and process), and continuousness. These concerns pull processes towards simplification (no matter how complex the product) and predictability, reaching its modern acme in processes such as lean manufacturing in which tasks are broken in micro-seconds and inventory can be held for as little time as minutes. The effectiveness and efficiency of such manufacturing comes from the gross massification of its output. The unexpected, idiosyncratic, or individual is an interruption. As societies we tell stories about the value of manufacturing. We like what it delivers (cheapness, functionality, standardization, predictability) yet we remain uncomfortable with its outcomes.

On the positive side, we have many stories extolling the birth of manufacture. These stories collapse complexity into a narrative of remarkable neatness: shifts in the tectonic plates of social structure occur, flows of capital carve out new paths, we move from here to there, historically, with beguiling neatness. New technologies are invented, new things, new wants and desires, new ways to organize their production, new ways to get them, have them, and use them. People such as Wedgwood and his partner

Thomas Bentley are found to be finding themselves aware of such things, set in nicely plotted commercial situations in which opportunities, tastes, customers, markets, income levels, aspirations and machines find a persuasive, causal alignment. The environment of Wedgwood's industrial success is explained in the identification of burgeoning domestic and export markets, realized through the invention of steam driven machinery and the industrial application of natural science, and enabled by the digging of canals and the stabilising influence of well-established systems of commercial law and exchange.

There are other stories of course, those more troubled by manufacture. If the positive stories we tell about the virtues of industry are essentially nineteenth-century in origin then so are our fears and doubts. In *The Nature of Gothic*, for example, John Ruskin extolled mediæval crafts to reveal the shallowness of his own age. Ruskin decries as false idols those very qualities we cherish in manufacture; its smoothness, its sameness, its certainty and safety, its politeness, and its mass. First amongst all the qualities Ruskin valued in the Gothic heart was its acknowledgement and accommodation of savageness and rudeness. 'Perfection' is only achievable within narrow, constrained, limits, for 'the finer the nature, the more flaws it will show through the clearness of it.' In a reversal of modern trajectories, it is, argues Ruskin, ignoble 'to prefer the perfectness of the lower nature to the imperfection of the higher' and we should always look 'not to set the meaner thing, in its narrow accomplishment above the nobler thing in its mighty progress ... [and] not to lower the level of our aim, that we may the more surely enjoy the complacency of success.'

Ruskin observed how the 'modern English mind ... intensely desires in all things the utmost completion or perfection compatible with their nature.' The nation took an overweening pride that 'her slightest work was done so thoroughly.' Perfection is accompanied by a craving for completeness and sameness, even though 'great art ... does not say the same thing over and over again' and a 'demand for perfection is always the sign of a misunderstanding of the ends of art.' Moreover, if 'we pretend to have reached either perfection or satisfaction we have degraded ourselves and our work.' The price of perfection Ruskin saw exacted by his age was, above all, a human one:

> And the very great cry that rises from all our manufacturing cities, louder than their furnace blast, is all in very deed for this, that we manufacture everything there except men; we bleach cotton, and strengthen steel, and refine sugar, & shape

> pottery; but to brighten, to strengthen, to refine, or to form a single living spirit, never enters into our estimate of advantages.

Perfection demands servility from those producing it. If, on the other hand:

> You ask [the worker] to think about any of those forms [of what he helps to produce] ... you have made a man of him for all that. He was only a machine before, an animated tool ... You must either make a tool of the creature or a man of him. You cannot make both ... if you will make man of the working creature, you cannot make a tool. Let him but begin to imagine, to think, to try to do anything worth doing; and the engine turned precision is lost at once. Out come all his roughness, all his dullness, all his incapability; shame upon shame, failure upon failure, pause after pause; but out comes the whole majesty of him also; and we know the height of the it only when we see the clouds settling upon him. And whether the clouds be bright or dark, there will be transfiguration behind and within them.

And so we put ourselves to the wheel. Every choice we make implicates us: 'choose whether you will pay for the lovely form or the perfect finish, and choose at the same moment whether you will make the worker a man or a grindstone.' The flawed perfection of manufactures, and its accompanying degradation of humanity, reached its apogee in that 'great civilized invention of the division of labour; only we give it a false name. It is not, truly speaking, the labour that is divided; but the man.' Ruskin bemoans this splitting of self: the intellect rent from the intuitive; the analytic from the creative; instrumental reason privileged at the expense of the imaginative.

These critiques continue to be made. In his provocative text *The Invention of Craft* Glenn Adamson claims the period swept away an 'undifferentiated world of making.' From the ashes of this unitary world, Adamson identifies the emergence of a set of 'dialectical pairings' around the basic dyad of craft/manufactures. He aims to 'establish [the] historical origins' of these pairings. Indeed, Adamson, argues that craft exists only in the company of manufacture, through whose effects it is simultaneously defined and marginalized, an 'antidote to modernity,' the shadowed side of a progress which nevertheless persisted, for example in pockets of hand-making in many industrial settings (whether factories or workshops) and the creation of new highly skilled trades (e.g. tool-making) serving manufacturing.

Despite these observations of the persistence of craft, and despite his questioning of the dialectical pairings he himself sets up (especially craft/manufactures), there is no doubt that Adamson sees a multifaceted assault on craft, and the craft-worker, taking place through industrialization. It, and they, are corralled by new forms of 'organizational management' ('Manipulations') and 'discursive explication' ('Mystery') that together 'controlled craft skill through abstract or institutional means.'[3] In time craft workers too were stripped of agency (recalling Ruskin's notion of the divided man) and their memory traduced, deliberately or not, by revivalists.

But if the possibility of this simultaneous creation and 'othering' can be grasped then there other tensions in Adamson's claims harder to resolve. In particular, he valorizes craft and craftspeople, claiming 'it is through craft that the *real* work happens.'[4] Similarly striking is the argument that 'craft, with its deep connection to materiality and cultural continuity [emerges] as a remedy for modernity.' How can craft be a remedy for something of which it is a part and from which it is inseparable and how can craft carry cultural continuity when it did not have an existence prior to modernity (for before modernity and industrialization there was no craft, only a unitary world of making)? At its heart, though it is rarely couched as such, Adamson's story tells of class-oriented alienation in which craftspeople are essentialized as bearers of a valuable but marginalized cultural inheritance of making. By what forces, or at whose hands, did this alienation come about?

Wedgwood, manufacturing and industrialization

As we have seen, Adamson, whilst arguing that craft was created through a process of 'othering' instigated by industrialization, also argues that craft skills and craftspeople were reduced and circumscribed by the same processes. We are returned to a story of loss. In Adamson's telling there are several very active agents at work in these processes, some human, some not – very prominent amongst them, for Adamson, is Josiah Wedgwood. It is worth looking at Adamson's reading of Wedgwood in some detail, not simply because it is mistaken (though we do believe it is), but because it is symptomatic of a wider analysis of the causes of craft's simultaneous creation as both companion and marginal 'other' to industrialization.

First, ceramics manufacturing is positioned as particularly susceptible to some of the key forces at work because the consistency and replicability necessary to serve a

mass-market was only 'achievable only when artisans could work reliably to set designs.'[5] Moreover, industrialization's symptomatic attack on craft's inherited, tacit 'proprietary knowledge' was 'particularly vexed' in productive spheres rooted in 'formulae or recipes,' conditions clearly obtaining in ceramics. As a result, the eighteenth-century saw the ceramic industry go from arcane and alchemical to 'self-consciously modern [and] scientific,' with 'tacit craft knowledge ... sidelined in this performance of (half) truths.' For Adamson, the attacks on the uncodified knowledge of craft-workers were 'led by self-promoting scientists and entrepreneurs ... like Josiah Wedgwood.' The judgment is damning and (at least in this strongest form) reserved for him alone:

> He casts "secrets" as a dirty word and himself as a champion for public knowledge, an identity he often adopted as part of his relentless claim of self-promotion ... As in so many aspects of his career, Wedgwood's embrace of public knowledge reflects his own skill at gaining personal advantage by anticipating broader currents within the ceramic industry.

This last phrase is important; Wedgwood was but a clever anticipator and invented nothing (despite so often being first). But perhaps more important still is the language of self-interest. This is a socio-economic judgment, one separate from any direct question of making, and yet allowed to colour those questions of making unmistakably. Wedgwood is an entrepreneur, leading representative of a new class, a 'generalist profession ... against which the master craftsman came to be defined ... by his supposed limitations.' This separation and 'againstness,' this 'othering,' was critical to the operation being put into effect, such that Wedgwood and others of his class 'felt confident that, provided they could separate themselves definitively from the echelons of artisans, their status as innovators would allow them to work profitably at the intersection of private invention and public knowledge.' Again, the language of separation speaks of a setting against. In the end, however, Adamson's most critical words are perhaps also his blandest, for he says that Wedgwood 'confined his own activities to the relatively hands-off processes of design and technical experiment.' Here the language of confinement speaks of narrowness and limitation. However, we know the claim that Wedgwood confined himself in this way is simply not true.

Of course, other histories of Wedgwood are told that are perhaps equally problematic. He has been portrayed and vaunted as an enlightened businessman. In

particular, in a series of papers published across the 1960s and 1970s, economic historian Neil McKendrick built up a portrait of Wedgwood as a 'scientific industrialist' and entrepreneur who ceaselessly innovated in the realms of marketing, commercialization, cost-accounting, production planning, factory organization and discipline. As important to McKendrick as Wedgwood's achievements were his motivations. He paints Wedgwood as driven by ideals as to the proper *ends* of activity such that 'having once obtained perfection in production ... [he had to] achieve perfection in sales and distribution.' Naturally, we are reminded of Ruskin's words on the subject of perfection. He was, McKendrick argues, a restless problem-solver for whom 'it was characteristic that once his preoccupation with a problem had led to a *solution*, the problem rapidly faded from his consciousness'. McKendrick adumbrates Wedgwood's achievements. They were all in the direction of perfection, perhaps most famously expressed through his wish to 'make such machines of the Men as cannot err.' It is true that by 1769, in which year he opened his new, model works at Etruria, Wedgwood had established himself as England's pre-eminent *manufacturer* of ceramic wares and from there went on to govern the globe in such a trade. Whilst Bentley sold the pots, Wedgwood designed, manufactured, and moved them. The enterprise was thoroughly modern in its clarity and order. Historians and biographers regard Wedgwood's venture at Etruria as an almost archetypal form of industrial production. Wedgwood's own life becomes an object continually objectified in these narrative spaces

Though one condemns and the other celebrates there is in fact a striking symmetry between Adamson and McKendrick's views of Wedgwood; he drove out risk, doubt, uncertainty, removing skill and creativity from the domain of the maker. His works created beautiful pots, but they were often sterile and purposeless. To do so he had to remove himself from the act of making and become an agent of the 'othering' and alienation of craft and craftspeople.

Throughout his career, however, alongside his ceaseless scientific experimentation with glazes and bodies he continued to make his own pots, to keep in touch with the clay and fire from which his wealth emerged. This persistence in *making* disrupts and casts into doubt the assumed patterns that scholars like Adamson and McKendrick impute in their theorization of industrialization in ways that demand our attention. At a basic level, Wedgwood undoubtedly enjoyed that physical act of making in which he had been brought up, the haptic pleasures of it. But it was also more than a

mere hobby or indulgence, it speaks also of the interleaving of craft with industry and entrepreneurship that runs much deeper than the mere persistence of some slender space for craft within the factory setting. Craft, read as openness to doubt, risk, uncertainty, to the possibility of incompleteness and imperfection, remained as central to his manufacturing and entrepreneurship as it did to his own practice of hand-skills. Across the rest of this paper we will explore the dimensions of that relationship.

Wedgwood's Craft

Wedgwood made things in order to sell them, and he was adept at both. He organized workers and workshops, canals and showrooms, taste and patrons, designs and patterns to these ends with great effect. His works served the ends of having plates to eat from, vases to display, taste to augment or elevate, and wealth to be got. He created an intense and notable form of proto-mass production. The clay, the hands, and the clients all seemed subject to his will and ends. This has been well-documented. What has concerned historians much less is his life-time practice of continuing to personally make pots, as if reaching towards an understanding of craft beyond the instrumental. How, in the context of rampantly successful manufacture, can this persistence with craft be understood? We begin by first conceptualizing what we mean by craft.

Orcadian poet Edwin Muir (1887b) recalled watching an islander build a boat:

> He would stand over the growing boat and deliberate for a long time on what he should do next, at last saying in a judicial voice, as if he had just convinced himself, "We'll do this now", or "We'll do that now". He was never in a hurry, he sawed and planed and chiselled in a particular way of his own, absorbed in the thought of the boat, as if there was nothing but it and himself in the world, and his relation to it had a complete objective intimacy.

The boat comes into being alongside the builder as he makes it with tools and materials into a buoyant, capacious and navigable shape. Muir captures plainly the complicity between the builder, material, form and ends; the craft of bringing things into the world. A world away, yet close too, the Swabian Martin Heidegger, in his essay on the *Question Concerning Technology,* presents an extended consideration of such craft, the instrumentality of technology, and our place within it that helps us to understand

what was happening with the boat builder and by extension in Wedgwood's workshops and laboratories. Heidegger identifies our common-sense understanding of craft as largely instrumental; crafted things, like boats and pots, exist insofar as users estimate and esteem them as objects useful to our ends, even if those ends are non-utilitarian, such as manifesting our good taste. We objectify them as things of value, distinct from, but for and of ourselves; the dividedness or 'againstness' identified by both Ruskin and Adamson. Heidegger suggests an additional understanding of craft arises when we consider the boat-builder or potter not as a governing subject causing effects in mute objects (wood, clay), but, instead, as inducing things to come forward in a sway of relations of indebtedness between: material (raw materials), form (shape), purpose (use), and skill (apprenticed tradition). He calls this four-way process occasioning (*Ver-an-lassen*), betokening the kind of immersion that Muir observed.[6] In craft the boat-builder or potter brings forth (*Her-vor-bringen*) what is already there rather then presume sovereign agency. The craftsperson becomes co-responsible for the occasioning of the boat or pot; they belong to this relationship rather than being 'outside.' Such occasioning finds in craft a condition of awareness, of listening, of abetting and so resisting the urge for perfectibility in which lies the fixed and hence deadening measure

Perhaps a strange word to associate with craft, occasion works doubly, it is a bringing about, that is also occasional. Such productions are not constant, and certainly not in Wedgwood's manufacture. His workers were challenged to produce distinct, measured objects both through the extraction of labour power and skill and the impress of performativity. Still, in addition, we want to show how Wedgwood's manufacturing was shot through with his restless search for the space to make occasioning possible.

Methods and sources

Our principal source for this reading of craft in Wedgwood's making and manufacturing is his very extensive correspondence, particularly that with business partner Thomas Bentley. In step with experienced time, Wedgwood's correspondence finds him working out what he values and how it might be attained. We read the letters likewise, and appreciate how their flow is set in wider currents of thought and feeling, what Stearns and Stearns have called an emotionology. For Wedgwood the principal streams informing the emotionology he inhabited were Enlightenment thought and

Unitarian religious belief. They helped him couch his participation in industrialization and modernity as hopeful and explorative, not haunted by loss. He emerges from a long-rooted family tradition of making pots, as a clever, practical, curious, indominatable, enthusiastic and communal human being; a self-conscious and unafraid, experimenter, and emboldened by a dissenting religion encouraging believers to reveal god in their own work. Reading the letters it becomes apparent that whilst, instrumentally, he is bringing a commercial enterprise into being, he remains as reticent and questioning as he is enthusiastic about manufacture. He is concerned about the manipulation of customers' taste, the effects of mass production techniques on workers' minds, and often-unjust politics influencing trading conditions. Yet more persistently, and privately, we sense him experimenting with pots and potting, and continually finding them eluding his best attentions. It is in this excited frustration that we sense his awareness of craft as a form of occasioning because rather than resent the lack of compliance he encounters amongst materials and forms and taste by which objects like pots find their life, he revels in and is spurred on by such refusal. Time and again he essays attempts at things that, in the uncertainty of their feasibility and outcome, challenge the smoothness and stability of his enterprise as an efficient and effective manufacture, and delights in this. We arrange Wedgwood's recounted experience using Heidegger's four-way process: material, form, purpose and skill

Wedgwood's Making

Material

Wedgwood's enthusiasm for the evanescent nature of materials begins early in letters where we find him trying to persuade Thomas Bentley to establish their adventuresome partnership. He begins, fittingly, with the raw material from which their fortune will be made:

> If we consider the great variety of colours in our raw Materials, the infinite ductility of Clay, & that we have universal beauty to copy after, we have certainly the fairest prospect of enlarging this branch of Manufacture to our wishes, & as Genius will not be wanting I am firmly perswaded [sic] that our profits will be in proportion to our application, & I am as confident, that it wo[d]. be beyond comparison more congenial, & delightfull [sic] to every particle of matter, sense & spirit in your

> composition, to be the Creator as it were of beauty, rather the merely the vehicle, or medium to convey it from one hand to another.

Trying to quantify this 'infinite ductility', Wedgwood continues by imagining clay flowerpots, vases, elegant tea-sets, toilet furniture, snuff boxes, animals in 'various attitudes', and 'the thousand other substantial forms, that neither you, nor I nor anybody else know anything of at present'[7] At the very outset of his partnership we find Wedgwood steeped in a sense of open possibility that emerges from his intimate relationship with material. Instead of seeing manufacture as a vehicle for a closed loop of smooth cause and effect it becomes a space for occasioning in 'a field to the farther end of which we shall never travel.'[8] As Ruskin observed, 'No great man ever stops working till he has reached his point of failure: that is to say, his mind is always far in advance of his powers of execution."[9] Or, we might say we find Wedgwood operating in exactly the way ascribed to the 'arcanist' by Adamson; in an 'imaginative register, working on what might be rather then exploiting what already exists.'

The delight in materials continues unabated throughout his career. By the time he is attempting to make copies of the Portland Vase at a time when his manufacturer was finally settling into an expanding confidence, we find him excusing himself to William Hamilton for the delays: 'I must depend upon an agent whose effects are neither at my command, nor to be perceived at the time they are produced, viz. the action of fire upon my compositions.' [10] The originating, Promethean gift of fire introduces effects that remain enticing and elusive. He is trying to get the right blue-black glaze. Blue has possessed Wedgwood throughout his potting life, its limits invite him. onwards. The glaze of the early firings is covered in minute cracks. To the naked eye they are invisible, even under a magnifying glass, but dampen the surface and they appear. How to understand and cure it? His conjecture to his son Jos is the blacker clay is diminishing in firing more than the blue, and so parting minutely as it heats and then cools. The answer? Perhaps bring the blue with a batch of '59' first? Wedgwood has been experimenting with different mixtures of clay, stone and metal, and different gradations of grind, assiduously noting all their properties using a personal cipher. These he orders in numerical chronology. #59 was the 59th time he arrived at a potentially useable mix, this one having the quality, amid others, of possibly, if mixed with blue, allowing blue and black to 'diminish in sympathy'.[11]

The blue is often reluctant in accepting this 'bringing,' yet Wedgwood is not discouraged. Using plain black would have been easier. The ground of the original vase looks black on first encounter, the deep blue concealed until pierced by light. Yet blue is Wedgwood's mark, so he continues to work with blue, accepting failure after failure. It had been fifteen years earlier that his company and blue were twinned:

> We cannot by any means at present devised, make the blue Seals all alike either in color or texture – The deepest, & palest are made from the same lump of Clay & fired not only in the same Kiln but in the same Sagar at the same time. Red Seals wo[d]. be made with much greater certainty, & look very well when polish'd - But anybody can make Red, & nobody but W&B can make Blue - & there is something in that which urges me strongly to prosecute the blue in preference to red.[12]

Wedgwood's blue comes from cobalt, itself carrying traces of nickel; the less nickel the finer the blue, and supplies from jealously guarded sources in Saxony are erratic, procured through opaque supply chains; hence the expense (two guineas a pound in 1791). Typically cobalt would only take with white clay.

Wedgwood had begun working since 1771, experimenting first with white porcelain bodies that would better take colour and be amenable to polishing, and to find means of applying blues more cheaply as thin veneer of liquid slip upon which might be added bas-relief modeling, his skill bringing habit and experiment into constant conversation. Colour and its expression is an abiding concern from his apprenticeship onwards. He begins by using metallic calces to evoke the surface of other materials like tortoiseshell or agate, realizing new colours; for example, during his early partnership with Thomas Whieldon, a bright green that had 'considerable sale'. Whieldon afforded Wedgwood awareness of the vast reach of his craft, giving him space and equipment to experiment with materials in ways that no sooner had he the grasp of something than it revealed myriad other possibilities. There was deep instrumentality, but also a 'speaking' of materials given voice by Wedgwood's enthusiastic, disciplined listening. His range and awareness of different clays, metals and stones and their possible behaviours became vast, yet twenty years after his partnership with Whieldon we still find him almost overwhelmed by how materials, like clay, remain both approachable and inscrutable:

> Mr Trecize's white *something*, for I can hardly call it a Clay, does not acquire the hardness of Clay in burning, unless mixed with other matters, but with 74 &c it makes a body of a most delicate pearly blue & may be a valuable raw material, but I have so many of these raw materials, & different compositions under my immediate care, & in which nobody can assist me that I am crazed with them.

Thus, this persistent listening to the material, to the colour, and to effect of things is always disclosing more: 'I have got an excellent cement' he tells Bentley 'which we can even mould into ornaments, which grow nearly as hard as ware, & scarcely to be distinguish'd from it, with this we have done the Vases over again which were stopped with the wax cement, & intended to be sold as seconds, & have converted them into best.'[13] The commercial instrumentality evident here is also an occasioning, found within the experimental endeavour. Finding himself implicated in materials, his inventiveness is not so much working upon as within them. So instrumentalism can give way within itself, occasionally and control over materials is aimed at, without being realized.[14]

Form

Form is received – tradition governs an awareness of vases and cups – and yet awaited, projected into other future forms. So form is as much temporal and collective as it is spatial. In receiving forms Wedgwood looked to long-used pattern books and to goods in other materials that might also be made from earthenware, always after historical examples and ever sensitive to the winds of public taste. Perhaps his greatest source of form though was antiquity. He threw himself and his modellers into copying patterns from old vases, sculptures and urns, sending his finest sculptors, Flaxman and Webber, to Rome to allow them to render the Antique in productive form. Wedgwood enthused over vessels or relief work, finding them provocative in their subtlety and quality, ever alive to the resonance of antiquity for its own sake; the attention to detail, the robustness of lives depicted, the beauty and elegance of form. He was attentive, enthusiastic, grateful, disciplined in observation. This enthusiasm, however, never becomes dogmatic imitation. The Grand Tour of Europe and primarily Italy had become increasingly institutionalized, promoting touristic fervour well beyond the confines of an elite aristocracy. Many young men were being sent abroad to steep

themselves in antique refinements, often bringing home excavated (robbed) figures and pots. Ancient culture was being unearthed, Athenian, Roman, 'Etruscan', and exposed to a hungry public who felt possession of such objects might bestow virtue, esteem and taste. These objects were didactic, edifying. Wedgwood realized their cultural and social power, securing access to drawings and pots of avaricious and knowledgeable antiquarians, notably William Hamilton, official to the court of Naples. If Wedgwood might manufacture equivalents at a fraction of the price, how wide might he be able to extend the range of taste beyond those migrating to Rome?

Thus Wedgwood began to consciously make his name on the back of 'virtuosi' whose Grand Tour taste provided the models and patterns of form in which an emerging, wider middle class might share; hence the name of his factory, Etruria, from Etruscan, His factory learns how with subtle embellishment of colour, subject and shape these antique objects could be manufactured as copies that redounded with modern appeal. He accepted the jejune influence of people like Hamilton, and yet was suspicious. Etruscan meant more than a brand; the letters find him extolling an idealized Etruscan sensibility as a model of living properly by living productively and usefully.

In copying antique forms, Wedgwood regarded his efforts as respectful without servility: 'I have endeavoured to preserve the stile and spt. or if you please the elegant simplicity of the antique forms, & so doing to introduce all the variety I was able.'[15] Yet, Wedgwood felt himself challenged, even humbled. On handling the Portland vase for example he was impressed though doubtful. Flaxman had recommended the vase to him as 'the very apex of perfection to which you are endeavouring to bring your bisque and jasper,' though encountering the vase Wedgwood admits his 'crest is much fallen,' his joy dampened. He first concedes to an ancient artist who excelled in producing effects of perspective and distance 'by cutting the white away, nearer to the ground as the shades were wanted deeper, so that the white is often cut to the thinness of paper, & in some instances quite away, & the ground itself makes a part of the bas relief; by which means he has given to his work the effect of painting as well as sculpture.'[16] He recurs to commerce, beginning 'to count how many different ways the vase itself may be copied to suit the tastes ... purses of different purchasers.' Here, as the vase is opening out to Wedgwood, its beauty revealing itself under his long tutored scrutiny, it is also closing off into the tightening of commercial reproduction fed by new values. Different customer classes are envisaged. There is the possibility of unraveling the elements of

the vase, making itaglios of the heads for seals and cameos, or groups of figures used as cabinet pieces. New forms are projected from patiently encountering the old, but the occasioning is dimmed as these forms are measured as saleable items with varying degrees of perfectibility.[17] Wedgwood's craft remains occasional.

Uses

Wedgwood's was a perennial concern with use. He divided manufacture between Useful and Ornamental Ware, and was forever pondering whether the distinction mattered. Wedgwood began making cups, and teapots, but fortune came making ornaments, which vexed him. Of his cream-coloured or Queen's Ware Wedgwood said: 'How much of this general use, & estimation, is owing to the mode of its introduction - & how much to its real utility & beauty? Are questions in which we may be a good deal interested, for the governm[t] of our future Conduct.'[18] Perhaps the interest stemmed from a nagging sense that ornaments designed merely to adorn were not fitting concerns for Enlightenment industrialists, as he and Bentley felt themselves to be. Their intellectual hero Rousseau (whom Bentley met) explicitly berates those who would sully the manifest benefits of independent trade by painting flowers on china rather than, say, making shoes. Wedgwood must have blanched on reading this.[19] In the end, though, there was no answer. Demand finds the use to which things are put, and is as much entangled with fashion as it is need.[20]

Organizing his enterprise into Useful and Ornamental parts made productive if not philosophical sense. Control over useful wares was handed to a cousin, 'Useful Tom', usefully already so-named. The constancy of manufactured output at the Useful Works under the steady controlling hand of Useful Tom gave the Ornamental Works the free rein to indulge and spur the crazy, jolts, spurts, and lurches involved in serving fashionable aspiration and display. Usefulness underwrote experiment and frivolity in an uneasy alliance. As Ruskin was to argue:

> I would not impeach love of order: it is one of the most useful elements of the English mind; it helps us in our commerce & in all purely practical matters; and it is in many cases on the foundation stones of morality. Only do not let us suppose that love of order is love of art.[21]

There is little neater, more orderly, than an unadorned Creamware tea service, serving simple, warm, and sociable ends that cannot be traduced. Useful Tom and the useful ware had two ends then; to serve the needs of people and to serve as handmaiden to the ornamental.

However, if Ruskin berated mere utility, then utility, at least when ordered, modest, and comely, was nonetheless better than wanton or thoughtless production. Ruskin welcomed and relished the ornament of Gothic characterized by a 'magnificent enthusiasm that feels as if it could never do enough to reach the fullness of its ideal.' However, this enthusiasm had to have come from a 'profound sympathy with the fullness and wealth of the material universe, arising out of [a] Naturalism.' Above all ornament and the ornamental can deceive, cloaking or obliterating usefulness. Wedgwood was aware of this. Too much adornment dazzles and seduces our sensibility:

> I am not without some little pain for our Nobility and Gentry themselves, for what with the fine things is Gold, Silver and Steel from Soho, the almost miraculous magnificence of Mr Coxes Exhibition, & the Glare of the Derby & other China shews – What heads or Eyes could stand all this dazzleing [sic] profusion of riches & ornament if something was not provided for their relief, to give them at proper intervals a little relaxation and repose. Under this humble idea, then, I have some hopes for out black Etruscan, & Grecian Vases still, & as I expect the golden surfeit will rage with you higher this spring, I shall almost tremble even for a gilt listel amongst your Vases.[22]

Wedgwood's ornament was capable of demanding subtlety; in refusing the gaudy the pieces enlisted rather than denuded human attention. In this even ornamental ware carries 'some use', both architecturally and didactically. Breaking the stillness of space above a fireplace with George Stubbs' relief of Phaeton wrestling with the reins of the day, for example, becomes a decorative reminder that human technics always have limits. In portraying slaves as equals on medallions the owner avows and emancipatory politics. And in testing whether glazed or unglazed (more porous biscuit) plant pots were better for roots and growth, the gardener extends their material awareness of the 'earth' to more than soil.[23] Hitherto ornament meant show and glitter but Wedgwood feels no compunction in taking this on. He produces pieces whose purpose demands involvement.[24]

Skills

At so many points in working with material, form, and purpose Wedgwood adopts an attitude deeply implicated in occasioning; reticent in the face of recalcitrant things and laughing at his own pretensions. In such a spirit, for example, he recommends Bentley examine some imperfect Etruscan bronze vases:

> to shew you a little into the light of our imperfections in the manufacturing of these delicate compositions, & the disappointments you must expect to meet with when you become a Potter so that if you can be picking up a little patience & storing it against a time of need, there may be no sort of harm in it.[25]

Nearly a decade later he remains patient: 'To bear, & forbear, is our great business, & he is the happiest Man, who is best proficient in this very necessary science.'[26] Here Wedgwood foreshadows Ruskin again, who seventy years later was to urge: 'Do what you can, & confess frankly what you are unable to do; neither let your effort be shortened for fear of failure, nor your confession silenced for fear of shame.' Wedgwood gladly confessed his failures and equally gladly went on across a field the extent of which he would never know or see.

His methods were many, and collectively refined in the inquiring company of experimenting friends, notably Joseph Priestley and Erasmus Darwin. Wedgwood was assiduous in attention to detail, though often deeply instrumentally. He set up a clerk of weights and measures to ensure the workers avoided overusing clay, saving money not only in materials but also in the loss of credit associated with making heavier ware. He was also one of the first industrialists to account for set-up costs, notably to make small batches, which for workers 'creates them as much trouble in tuning their fiddle, as playing the tune.'[27] Yet as Etruria grows and flourishes, Wedgwood is still found at his workbench, setting himself into a kind of perpetual exploratory motion:

> I have for some time past been reviewing my experiments, & find such Roots, such Seeds as would open & branch out wonderfully if I could nail myself down to the cultivation of them for a year or two. And the Foxhunter does not enjoy more pleasure from the chase than I do from the prosecution of my experiments when I am fairly enter'd into the field, & the further I go the wider this field extends before me. The Agate, the Green & the other colour'd Glazes have had their day,

> & done pretty well, & are certain of a resurrection soon, for there are, and ever will be a numerous class of People, to purchase *shewy* & *cheap* things. The Creamcolour is of a superior Class, & I trust has not run 'its race by many degrees. The Black is sterling, & will last for ever. These are a few of the Roots which have been selected, & put into a state of cultivation, & I never look over my Books, but I find many more which I should very gladly bring into action; but the too common fate of schemers is ever before my Eyes, & you [Bentley] have given me many excellent lectures upon the bad policy of hurrying things too fast upon another.[28]

The craft opens and expands in cultivation without distinct or pre-existing boundaries; it is the world of materials and form and ends opening up within the experience of experiment itself. Controlling instrumentality vies with open-ended curiosity; Wedgwood is getting on in the 'Art and Mysterie' pretty well as he envisions more than he ever will produce, imagining 'fine things that revolve daily in my pericranium [sic], some of which I hope will escape as our hands & other matters approach greater maturity.'[29]

The experimenting imagination was executed through increasingly skilled attention to heating, cooling, mixing, forming, polishing, the outputs of which left yet even more forms unarticulated as imagination vied with his growing facility as a potter and expanding facticity of new materials. He finds Bentley, for example, thinking about different uses of gilding and commends him: 'Success to your visions – Dream on my Dear Friend & fear nothing. If you wake too soon, the phantoms may vanish, dissolve in air, & be no more; but with a little more brooding over, a little more fostering in the brain, they may in time be hatched into real substantial forms, & as substantial fame.'[30] Dwelling with the problems that challenged and interested him, he relied often on an intuitive, instinctive sense of possibility, from which personal crucible comes:

> .. a kind of *second sight* of the great things that *may* and I hope *will* be done, a Prophetic view, or if you please, a reverie of these things passing in review before my imagination, [that would] make anything I have hitherto done appear sufficiently diminutive to keep me as humble as I wish to be for I wo[d]. not have too much of that X[n]. virtue. – I think Pride, a certain kind of it, & to a certain degree, is productive of a world of good amongst us Mortals, who stand in need of every incentive to great, & good actions.[31]

This is hardly the ego of Adamson's opportunity-seeking profiteer, and whilst he was never abashed by his sense of contribution[32] he remained subject, like his great friend, Erasmus Darwin to 'the free associations and temporal disruptions of reverie as a source of poetic inspiration', not just commercial profit. It is the wariness with which he treats this inspiration that betokens the craftsperson rather than artist: '[T]he greatest difficulty I have ever found is to check & keep my invention under proper subordination, if I was to give it the reins I should soon become an errant schemer in the common acceptation of that term.'[33] Time too is a factor in the urge to reach beyond oneself:

> But oh! Time – time – There is no time to bring to maturity a thousandth part of the possibilitys in our engaging and prolific business, I see, at a single glance, immensely father than I shall ever be able to travel.[34]

Finally, of course, commercial sensibility also intrudes: 'if I durst give reality to my visions your stock would be in danger, & that you know is a serious consideration.'[35]

So what with humility, mortality and commerciality the letters reveal both craftsperson and manufacturer, a very embodiment of the duality with which we began, that occasioning well-describes, and with little echo of the perfected solutions described by McKendrick, nor the closing off through disclosure ascribed to Wedgwood by Adamson.

Conclusions

We do not claim this as a comprehensive portrait of Wedgwood's experience of craft, or of its role in his manufactures. Nor do we claim him as representative of other entrepreneurs and industrialists of the period. Similarly, we accept under industrialization, even in Wedgwood's workshops, craft could become attenuated and fragile (just as, simultaneously, the skill of some, such as the best modellers and painters, was brought to new heights). But we do question both McKendrick's portrayal of Wedgwood as a remorseless perfectionist and Adamson's emphasis on self-promoting opportunism. These readings miss the evidence from letters revealing

Wedgwood's practice creating new spaces for craft through industrialization, spaces that have hitherto been missed.

Building on David Pye's notion of craft as the workmanship of risk (and thus less closely tethered to hand skill) fused with Heidegger's concern for the possibility of making as an occasioning we propose Wedgwood's restless experimentation and his persistence with the direct experience of making and objects as a form of craft characterized by a glad openness to doubt, uncertainty, possibility, and, in the end, the impossibility of completeness. No doubt rooted in Wedgwood's sharp mind and deft hands (for these he undoubtedly possessed) this sense of craft as occasioning, coupled to commercially-adept, industrial innovation, reveals an accepting, indeed reveling, in embodied contraries. Under tour reading of Wedgwood the antinomies and separations we so readily associate with the fate of craft under industrialization begin to breakdown or blur. From an undifferentiated field of making industrialization opens up not into those stark contrasts – with craft as only either 'other' or handmaiden to manufactures – but instead we find both craft and manufacture agitating and even accentuating one another in singular practice.

---

[1] It is probably not incidental that Jennings' parents, an architect and a painter, were member of the guild socialism movement, which looked back to the pre-industrial world of craft and trades guilds.

[2] William Blake Milton. Beckford Copy, Extra page 3. Edited by E Maclagan and A Russell. London: A.H.Bullen. 1808/1907.

[3] Adamson, p.140

[4] p. xix [emphasis added]

[5] Adamson, p.20

[6] Heidegger discusses a chalice. Interesting, Adamson makes a related argument through the example of a drinking vessel, saying that it is 'It is in the process of materialization that an [object] ... acquires its meaning: "you can tell more about something from the ways it's made than from what it is." The cheapness or refinement of a making process (injection moulding, goldsmithing) locates the value of the resulting object (a plastic cup, a bejeweled goblet) much more specifically than its function (drinking).'

However, much more than Heidegger he concentrates on the gross material aspects of the making – the techniques and materials deployed give the value. Invention of Craft, p. 114

[7] (8th Nov., 1767, I, p.186-188)

[8] (E.18193.25, 15th March, 1768, I, p.209).

[9] nature of gothic 32

[10] June 1787.

[11] (E.18993-26, 9th May, 1790, III, p.120)

[12] (E. 18734.25, 25th Jan, 1777, II, p.339)

[13] (E18236.25, 23rd March, 1769, I, p.254)

[14] Other examples: (E.2490-3, Oct. 1791, III, p.173-174); (E.18660.25, 10th March, 1776, II, p.277); (E.18612.25, 23dr July, 1775, II, p.236).

[15] (E.19001-26, June 28th, 1789, p.86).

[16] (E.18976-26, 24th June, 1786, III, p.44).

[17] (p.48)

[18] (E.18167-25, I, p.127).

[19] Both Wedgwood and Bentley read Rousseau avidly

[20] Based on Queen's Ware, his 'Frog Service', commissioned on behalf of Catherine of Russia, embodied this perpetual tension in his awareness of ends. Pandering to sensibilities of the Ancien Regime, it was to be decorated with views of England's great country homes and estates (E.18495.25, 14th Nov. II, p.165). Yet it was a service for an Enlightenment ruler.

[21] (Nature of Gothic, 35)

[22] (E18365.25, 11th April, 1772, II, p.68).

[23] (E18358.25, 22nd March 1772, II, p.65)

[24] (E18334.25, 24th Dec., 1770, I, p.387)

[25] (E.18208.25, 30th August, 1768, I, p.225)

[26] (E.18697.25, 19th September, 1776, II, p.310)

[27] E.18392.25, 23rd August, 1772, II, p.89).

[28] (E.18521.25, March 7th, 1774, II, p.177).

[29] (E18271.25, 1st December, 1769, I, 313).

[30] (E.18357.25, March 1772, II, p.62).

[31] (E.18255.25, 17th Sept. 1769, I, p.274)

[32] (E18213.25, 6th Nov., 1768, I, p.231)

[33] (E18358.25, 22nd March, 1772, p.66)

[34] (E18804.25, 20th Dec., 1777, II, p.399).

[35] (E18790.25, 3rd Nov., 1777, II, p.391)